

ABSTRACT OF THE DISCLOSURE

The present invention provides an electrochemical device capable of improving the usability for portable devices, enhancing the degree of freedom in layout of the electrochemical device, and facilitating the packaging of the electrochemical device as a product, and a power generator and a power generation system using the electrochemical devices. The electrochemical device includes a hydrogen absorber, a fuel electrode, an ion exchange membrane, and an oxygen electrode. The fuel electrode and said fuel source constitute a fuel electrode assembly in a state being in contact with each other. The fuel electrode assembly is surrounded by said ion exchange membrane in a state being in contact with said ion exchange membrane. The ion exchange membrane is surrounded by said oxygen electrode in a state being in contact with said oxygen electrode. The electrochemical device can output an electric power by supplying hydrogen absorbed in the hydrogen absorber as a fuel to the fuel electrode.